

September 27, 2006

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RECEIVED  
REGION 1

License No. 07-30728-01  
Docket No. 030-35986

U.S. Nuclear Regulatory Commission  
Nuclear Materials Safety Branch 2  
Division of Nuclear Materials Safety  
475 Allendale Road  
King of Prussia, PA 19406-1415

Subject: Amendment to License No. 07-30728-01

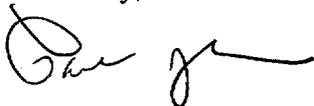
Dear USNRC Personnel:

Incyte Corporation would like to make the following amendments to US NRC license number 07-30728-01:

1. Incyte Corporation's Radiation Safety Officer, Michael Wendeler, listed in condition 12 of US NRC license number 07-30728-01, has left the company. We would like to amend condition 12 of our license to reflect the appointment of Maryanne Covington as Incyte Corporation's Radiation Safety Officer. Supporting documentation detailing Ms. Covington's training and experience with radioactive materials is enclosed.
2. Licensed material user, Max Pan, listed in condition 11. A. of the above mentioned US NRC license has left the company and should be removed from the license.

If you need additional information please contact me at 302-498-6714.

Sincerely,



Paula Swain  
Executive Vice President, Human Resources  
Incyte Corporation

139485  
NMSS/RGNI MATERIALS-002

**TRAINING AND EXPERIENCE**

**Note:** Descriptions of training and experience must contain sufficient detail to match the training and experience criteria in the applicable regulations.

1. Name of Individual, Proposed Authorization (e.g., Radiation Safety Officer), and Applicable Training Requirements (e.g., 10 CFR 35.50)

Maryanne Covington, <sup>RSO</sup>~~Authorized user~~

2. For Physicians, State or Territory Where Licensed  
NA

**3. CERTIFICATION**

Specialty Board	Category	Month and Year Certified
NA	NA	NA

**4. DIDACTIC TRAINING**

Description of Training	Location	Clock Hours	Dates of Training
Radiation Physics and Instrumentation	Stuart Kline Course Experimental Station Wilmington, DE 19880	2	March 1992
Radiation Protection	Stuart Kline Course Experimental Station Wilmington, DE 19880	2	October 1999
Mathematics Pertaining to the Use and Measurement of Radioactivity	Stuart Kline Course Experimental Station Wilmington, DE 19880	2	October 1999
Radiation Biology	Stuart Kline Course Experimental Station Wilmington, DE 19880	2	October 1999
Chemistry of Byproduct Material Medical Use	Stuart Kline Course Experimental Station Wilmington, DE 19880	2	October 1999
OTHER Refresher Training	Stuart Kline Course Experimental Station Wilmington, DE 19880	1	1984 through 2001

**5. PRACTICAL EXPERIENCE WITH RADIATION (Actual use of radionuclides or equivalent experience)**

Description of Experience	Name of Supervising Individual	Location and Corresponding Materials License Number	Dates and Clock Hours of Experience	Related Radiation Safety Exam Score
Academic research and pharmaceutical drug discovery  Isotope used: H-3, I-125, and S-35	Robert Newton	See attached resume, All jobs listed included work with radioactive materials	Majority of time spent working with radioactive materials (75%+)	NA (No scoring)

**6. FORMAL TRAINING**

Degree, Area of Study	Name of Program and Location with Corresponding Materials License Number	Dates	Name of Organization that Approved the Program (e.g., Accreditation Council for Graduate Medical Education) and the Applicable Regulation (e.g., 10 CFR 35.294)
See attached resume			

**Maryanne B. Covington**

**Work Address:** Incyte Genomics  
Stine Haskell Research Center  
PO Box 30, Elkton Rd  
Building 112  
Newark, DE 19711

**Home Address:**



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**EMPLOYMENT  
HISTORY**

**SENIOR RESEARCH SCIENTIST**

*Incyte Genomics East  
Feb 2002-present*

**SENIOR RESEARCH SCIENTIST**

*DuPont Pharmaceuticals Company and DuPont Merck Pharmaceutical  
Company and Bristol Myers Squibb  
August 1991-Feb 2002*

*August 1995 -Feb 2002*

Responsibilities as part of the TACE/MMP working group include supervision of all the Primary and Secondary Screening Assays, data reduction, documentation, and communication to chemists and members of the working group in a timely fashion. Active involvement with the chemists on SAR and with PK studies are essential. Development of TNF secondary assays and research of the biology of the TNF receptor are also primary responsibilities. Active involvement with Clinical and pre clinical patient sample monitoring for PK and ex vivo assays.

*June 2000 - Feb 2002*

Responsibilities as part of the CCR2 working group include development and optimization of the Chemotaxis functional assay. Supervision of this screening assay, data reduction, documentation, and communication to chemists and members of the working group are also primary responsibilities. Active involvement with the chemists on SAR is also a primary responsibility. Development of Biology databases in Oracle, Microsoft Access and ISIS are essential.

**RESEARCH SCIENTIST**

*January 1998 - March 2000*

Responsibilities as part of the CCR3 working group include supervision of all the Primary and Secondary Screening Assays, data reduction, documentation, and communication to chemists and members of the working group in a timely fashion. Development and optimization of functional assay such as Calcium Mobilization and Chemotaxis are also primary responsibilities. Active involvement with the chemists on SAR and with PK studies are also primary responsibilities. Development of Biology databases in Oracle, Microsoft Access and ISIS are essential.

*February - August 1995*

Optimization of adhesion assays as primary cellular screens for avb3 working group. This included cell lines, method of detection and screening of chemists submittals once assay was developed.

*May 1994 to August 1995*

*Working Chair MCP-1 Project*

Coordination of the activities between chemistry, biology, and animal studies as well as optimization and supervision of all biological assays. Timely reports to the working group, management and consultants was essential.

*June 1993 to May 1994*

*Working Co Chair of the PGHS2(COX2) Program*

Coordination of activities between, biology, chemistry, pharmacokinetics, and in vivo studies, and timely reports to working group, management and consultants was essential. Optimized and supervised both the enzymatic and cellular assays.

*September 1991 to May 1993*

As part of the PGHS2 (COX2) project, established surrogate marker assays for PGHS1 and PGHS2 and performed these assays as part of the clinical trial team.

**SCIENTIST**

*DuPont Company*

*January 1990 to March 1992*

Responsibilities included developing and optimizing assays for drug screening for the IL-1 Biosynthesis Inhibitor Program, teaching these assays to the staff and supervising drug screening; analyzing and reporting data to working groups, management, and consultants.

**SCIENTIST/BIOLOGIST**

*DuPont Medical Products - Glenolden Laboratory*

*September 1984 to December 1989*

Worked within the IL-1 projects. Responsible for establishing various bioassays and ELISAs for IL-1 and TNF studies and functional and ex vivo assays using monocytes and their role in inflammation.

**RESEARCH SUPERVISOR**

*DuPont Medical Products - Stine Laboratory*

*February 1983 to August 1984*

Supervisor of the Interim IL-2 project in the CR&D. Established a large scale growth and purification lab for making mammalian IL-2 which was used for clinical trials at the NIH and performed to comply with FDA guidelines.

**RESEARCH ASSISTANT**

*Lab of Carmen Merryman, M.D.*

*Thomas Jefferson University School of Medicine*

*Biochemistry Department*

*September 1981 to February 1983*

Responsible for all culturing, hybridoma work, fusions, etc., solid phase RIA's and animal studies.

**RESEARCH ASSISTANT**

*Lab of Earl Henderson, P.h.D.*

*Temple University Medical School*

*Department of Microbiology and Immunology*

*September 1979 to September 1981*

Responsible for culturing lymphocytes from normal and leukemic blood donors, treating these cells with chemical and physical carcinogens and doing DNA purification preparations to study DNA cell repair. Some cytogenetics were done also.

**EDUCATION:**

B.S. in Microbiology 1979  
Pennsylvania State University  
University Park, Pennsylvania

**Personal:**

[REDACTED]

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BY NRC. NO COPY OF THIS INFORMATION  
WAS RETAINED BY THE NRC.**

**Professional Societies:**

Tissue Culture Association  
Society for In Vitro Biology

Mid Atlantic Pharmacology Association  
Inflammation Research Association

Pennsylvania State University Alumni Association for Women in Science

**References given upon request.**

**PUBLICATIONS**

*Pharmaceutical Research Report 92-53*

Covington, M., Newton, R. Effects of a Novel Cyclooxygenase Inhibitor (DuP697) on Human Platelet Aggregation and Blood Prostaglandin E2 Production 1992

Technical Basis for Nomination (DPC 333 TACE Inhibitor) 1999

Henderson, E., \*Basilio, M., and Davis, R. Cellular DNA Damage by Nitrosocimetidine: A comparison with N-methyl-N1-nitrosoguanidine and x-irradiation. *Chem-Biol. Interactions* 38:87-98, 1981.

Henderson, E. and \*Basilio, M. Transformation and repair replication in lymphocyte from ataxia telangiectasia. *Proceedings of the Society for Experimental Biology and Medicine* (41598)172:524-534, 1983.

Newton, R.C. and Covington, M. The activation of human fibroblast prostaglandin E production by IL-1. *Cellular Immunology* 110:338, 1987.

Huang, J.J., Newton, R.C., Pezzella, K., Covington, M., Tamblin, T., Rutledge, S.J., Gray, J., Kelley, M., and Lin, Y. High level expression in escherichia coli of a soluble and fully active recombinant interleukin-1 beta. *Mol. Biol. Med.* 4:169-181, 1987.

Huang, J.J., Newton, R.C., Horuk, R., Matthew, J.B., Covington, M., Pezzella, K., and Lin, Y. Muteins of human interleukin-1 that showed enhanced bioactivities. *FEBS LETTERS* 223:2, November 2, 1987.

Horuk, R., Huang, J.J., Covington, M., and Newton, R.C. A biochemical and kinetic analysis of the interleukin-1 receptor. *The Journal of Biol. Chem.* 262:34, 1987.

Huang, J., Newton, R., Rutledge, S Horuk, S., Matthews, J., Covington, M., and Lin, Y. Characterization of murine IL-1 beta. *Journal Of Immunology* 140:3838, 1988.

Newton, R., Uhl, J., Covington, M., and Back, U. The distribution and clearance of radiolabeled human IL-1 beta. *Lymphokine Research* 7:3, 1988.

Wright, S., Harris, R. Kerr, J., Green, A., Pinto, D., Bruin, E., Collins, R., Dorow, R., Mantegna, L., Sherk, S., Covington, M., Nurnberg, S., Welch, P., Nelson, M., and Magolda, R. Synthesis, chemical and biological properties of vinylogous hydroxamic acids: Dual inhibitors of 5-lipoxygenase and IL-1 biosynthesis. *Journal of Medicinal Chemistry* 35:4061, 1992.

Venn, G., Niefeld, J.J., Duits, A.J., Brennan, F.M., Amer, E., Covington, M., Billingham, M.E.J., Hardingham, T.E. Synovial fluid IL-6 is associated with early experimental canine Osteoarthritis. *Arthritis Rheum* 36:819, 1993

Batt, D., Goodman, R., Jones, D., Kerr, J., Mantegna, L., McAllister, C., Newton, R., Nurnberg, S., Welch, P., and Covington, M. C2'-substituted chalcone derivatives as inhibitors of IL-1 biosynthesis. *Journal of Medicinal Chemistry* 36:1434, 1993.

Copeland, R., Williams, J., Giannaras, J., Nurnberg, S. Covington, M., Pinto, D., Pick, S., and Trzaskos, J. Mechanism of selective inhibition of the inducible isoform of prostaglandin G/H synthase. *Proceedings of the National Academy of Science, Proceedings of the Natural Academy of Sciences November 1994.*

Rider, N., Pinto, D., Covington, M., Orwat, M., Giannaras, J., Nurnberg S., Dowling R., Davis, J., Williams, J., Trzaskos, J., Copeland, R. Comparative Effects of Selective Cyclooxygenase 1 and Cyclooxygenase 2 Inhibitors on Myeloperoxidase and 3-Hydroxysteroid Dehydrogenase. *J of Enzyme Inhibition* 10:73, 1996

Pinto, D., Pitts, W., Copeland, R., Covington, M., Trzaskos, J., Magolda, R. Selective Inhibition of Cyclooxygenase 2: Diaryl Heterocycles vs Classical NSAIDS. *Med Chem Research* 5:394, 1995

- Wilkerson, W., Copeland, R., Covington, M., Grubb, M., Hewes, W., Kerr, J., Trzaskos, J. Cyclooxygenase-2 Inhibitory 2-Substituted-4,5-Diarylpyrroles. *IMed Chem Research* 5:399, 1995
- Copeland, R., Williams, J., Rider, N., Van Dyk, D., Giannaras, J., Covington, M., Pinto, D., Magolda, R., Trzaskos, J. Selective Time Dependent Inhibition of Cyclooxygenase-2. *Med Chem Research*, 5:384, 1995
- Dinchuk, J., Focht, R., Car, B., Johnston, J., Jaffee, B., Covington, M., Contel, N., Eng, V., Collins, R., Czernaik, P., Gorry, S., Trzaskos, J. Cyclooxygenase II null mice exhibit renal developmental abnormalities and female infertility. *Nature*, 1995
- Brown, A., Covington, M., Newton, R., Ramage, R., and Welch, P. The Total Chemical Synthesis of Monocyte Chemotactic Protein (MCP-1) *Journal of Peptide Science* 2:40, 1996
- Pinto, D., Copeland, R., Covington, M., Pitts, W., Orwat, M., Lam, G., Joshi, A., Chan, Y., Wang, S., Trzaskos, J., Magolda, R., Kornhauser, D. Chemistry and Pharmacokinetics of Diarylthiophenes to Terphenyls as Selective COX2 Inhibitors. *Bioorganic & Medicinal Chemistry Letters*. 6:24,2907, 1996
- DeCicco, C., Seng, J., Kennedy, K., Covington, M., Welch, P., Magolda, R., Nelson, D. Amide Surrogates of Matrix Metalloproteinase Inhibitors: Urea and Sulfonamide Mimics. *Bioorganic & Medicinal Chemistry Letters*. 7(18):2331-2336, 1997
- Van Dyk, D., Marchand, P., Bruckner, R., Fox, J., Jaffee, B., Covington, M., DeCicco, C., Trzaskos, J., Magolda, R., Copeland, R. Comparison of Snake Venom Reprolysin and Matrix Metalloproteinases as Models of TNF- $\alpha$  Converting Enzyme. *Bioorganic & Medicinal Chemistry Letters*. 7(10):12,19-1224, 1997
- Solomon KA. Covington MB. Decicco CP. Newton RC. The Fate of Pro TNF  $\alpha$  Following Inhibition of Metalloprotease-Dependent Processing to Soluble TNF- $\alpha$  in Human Monocytes. *Journal of Immunology*. 159(9):4524-4531, 1997
- Jacobson IC. Reddy PG. Wasserman ZR. Hardman KD. Covington MB. Arner EC. Copeland RA. Decicco CP. Magolda RL. Structure Based Design and Synthesis Of A Series Of Hydroxamic Acids With A Quaternary-Hydroxy Group in P1 as Inhibitors Of Matrix Metalloproteinases. *Bioorganic & Medicinal Chemistry Letters*. 8(7):837-842, 1998
- Cherney RJ. Wang L. Meyer DT. Xue CB. Wasserman ZR. Hardman KD. Welch PK. Covington MB. Copeland RA. Arner EC. Degrado WF. Decicco CP. Macrocylic Amino Carboxylates as Selective MMP8 Inhibitors *Journal of Medicinal Chemistry*. 41(11):1749-1751, 1998
- Scherle PA. Jones EA. Favata MF. Daulerio AJ. Covington MB. Nurnberg SA. Magolda RL. Trzaskos JM. Inhibition of MAP Kinase Kinase Prevents Cytokine and Prostaglandin E-2 Production on Lipopolysaccharide Stimulated Monocytes *Journal of Immunology*. 161(10):5681-5686, 1998
- Pinto DJP. Batt DG. Pitts WJ. Petraitis JJ. Orwat MJ. Wang SG. Jetter JW. Sherk SR. Houghton GC. Copeland RA. Covington, MB. Trzaskos JM. Magolda RL. Terphenyl cyclooxygenase-2 (COX-2) inhibitors: Optimization of the central ring and o-biphenyl analogs. *Bioorganic & Medicinal Chemistry Letters*. 9(7):919-924, Apr 5, 1999
- Duan JJW, Chen L, Xue CB, Wasserman ZR, Hardman CD, Covington MB, Copeland RR, Arner AC, DeCicco CP. P1,P2-Linked Macrocylic Amine Derivatives As Matrix Metalloproteinase Inhibitors. *Bioorganic & Medicinal Chemistry Letters*, 9 : 1453-1458, 1999
- Cherney RJ. Wang L. Meyer DT. Xue CB. Arner EC, Copeland RA, Covington MB, Hardman KD, Wasserman ZR, Jaffee B, Decicco CP. Macrocylic Hydroxamate Inhibitors of Matrix Metalloproteinases and TNF- $\alpha$  Production. *Bioorganic & Medicinal Chemistry Letters*, 9 : 1279-1284, 1999
- Wacker, DA, Varnes, JG, Estrella, MJ, Covington, MB, Welch, PK, Solomon, KA, Newton, RC. Heterocyclic Benzylpiperidines as CC Chemokine Receptor 3 (CCR3) Antagonists. Submitted *Bioorganic and Medicinal Chemistry Letters*. 2000
- Chu-Biao Xue, Matthew E. Voss, David J. Nelson, James J.-W. Duan, Robert J. Cherney, Irina C. Jacobson, Xiaohua He, John Roderick, Lihua Chen, Ronald L. Corbett, Li Wang, Dayton T. Meyer, Kenneth Kennedy,

William F. DeGrado†, Karl D. Hardman, Christopher A. Teleha, Bruce D. Jaffee‡, Rui-Qin Liu, Robert A. Copeland, Maryanne B. Covington, David D. Christ, James M. Trzaskos, Robert C. Newton, Ronald L. Magolda¶, Ruth R. Wexler, and Carl P. Decicco. Design, Synthesis and Structure-Activity Relationships of Macrocyclic Hydroxamic Acids that Inhibit TNF- $\alpha$  Release *in vitro* and *in vivo*. 44(16):2636-2660, 2001 Aug 2

Newton, RC, Solomon, KC, Covington, MB, Decicco, CP, Haley, PJ, Friedman, SM, Vaddi, K. Biology of TACE Inhibition. *Ann Rheum Dis* 1;60 0-7 2001

Xue, C, He, X, Corbett, R, Roderick, J, Wasserman, Z, Liu, R, Jaffee, B, Covington, M, Qian, M, Trzaskos, J, Newton, R, Magolda, R, Wexler, R, and Decicco, C. Discovery of Macrocyclic Hydroxamic Acids Containing Biphenylmethyl Derivatives at P1', a Series of Selective TNF- $\alpha$  Converting Enzyme Inhibitors with Potent Cellular Activity in the Inhibition of TNF- $\alpha$  Release. In Press *Journal Medicinal Chemistry* 2001

Yao, W., Chao, M., Wasserman, Z., Liu, R., Covington, M., Newton, R., Christ, D., Wexler, R., Cecicco, C. Potent P1' Bophenylmethyl Substituted Aggreacanase Inhibitors, *Bioorganic and Medicinal Chemistry Letters* 12 (2002) 101-104

#### **First or Primary Author Abstracts**

Covington, M., Huang, J., Daulerio, A., Matthew, J., Pezzella, K., Newton, R. Biological Activity of N-Terminus Mutants of Human Interleukin-1 Beta(IL-1). *Journal of Leukocyte Biology*, 42,4 1987

Covington, M., Uhl, J., Williams, J., Mochan, G., Newton, R. Selectivity of Arachidonic Acid Metabolism Induced in Fibroblasts by Human Interleukin-1 Beta. *Journal of Leukocyte Biology*, 42,4 1987

Covington, M., Sandlin, G., Giri, J., Horuk, R., Newton R. Evaluation of the Binding of Interleukin-1 Beta to Human Cell Lines. *In Vitro Cellular and Developmental Biology* 26A;6 1990

Vaddi, K., Welch, P., Fox, D., Covington, M. Characterization of the Monocyte Chemoattractant Peptide-1 Bioactivity on Human Peripheral Blood Monocytes. *Journal of Immunology* 150;8 1993

Breth, L., Kochie, J., Feldman, P., Fox, D., Welch, P., Newton, R. and Covington, M. Monoclonal Antibodies to Human Monocyte Chemoattractant Protein-1: Generation and Characterization. *In Vitro Cellular and Developmental Biology* 29A: 6 1993

Covington, M., Johnston, J., Nurnberg, S., Trzaskos, J. Inhibition of Prostaglandin G/H Synthase 2 in Human Monocytes. *Agents and Actions* 1994

Nurnberg, S., Wadman, E. and Covington, M. Production and Secretion of Tumor Necrosis Factor- $\alpha$  and Soluble Tumor Necrosis Factor Receptor P75 and P55 in Human Peripheral Blood Mononuclear Cells. 1995 *Philadelphia Immunology Meeting*

Covington, M., Nurnberg, S., Wadman, E., Newton, R. Modulation of the Secretion of Tumor Necrosis Factor- $\alpha$  and Shedding of Tumor Necrosis Factor-Receptor P75 and P55 in Human Peripheral Blood Mononuclear Cells by Inhibition of Matrix Metalloproteases. AAIS and ASMB Joint Meetings, May 1996

Covington, M., Nurnberg, S., Wadman, E., Czerniak, P., DeCicco, C., and Newton, R. Effect of Matrix Metalloprotease Inhibitors on Biological Activity of Surface Tumor Necrosis Factor- $\alpha$  in Human Peripheral Blood Mononuclear Cells, *Eighth International Congress Inflammation Research Association*, October 1996

#### **Abstracts – not primary author**

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This is to acknowledge the receipt of your letter/application dated

9/27/2006, and to inform you that the initial processing which includes an administrative review has been performed.

Amendment 07-30728-01 There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

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A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 139495.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.